



दक्षिण पूर्व मध्य रेलवे

South East Central Railway

कार्मिक विभाग, प्रथम तल, महाप्रबंधक कार्यालय, बिलासपुर (छ. ग.) 495004

PERSONNEL DEPARTMENT, 1<sup>st</sup> FLOOR, GM's OFFICE, BILASPUR (C.G.) 495004

Dated 21.12.2020

No. P-HQ/CON/452/1/EL/207

PCEE, CAO/Con, SDGM /SECR

CSO, CAO (Con), CPO (A)/SECR.

DRM/BSP, R, NGP, CWM/WRS/R & CWM/WS/MIB.

PRINCIPAL/ZMDTC/BSP, GM (P) SER/GRC, GM (P) ECoR /BBS, GM (P) CORE/ALD

**Sub:** - Selection for formation of a panel of ADEE/AXEE (Gr 'B') against 70% DPQ (7<sup>th</sup> cycle) of Electrical department in SEC Rly.

**Ref:** - (1) Railway Board's letter No. E(GP)2018/2/31 Dated 30.09.2020  
(2) This Office letter No.P-HQ/CON/452/1/EL//123 Dtd 19.08.2020  
(3) This Office letter No.P-HQ/CON/452/1/EL//102 Dtd 02.07.2020  
(4) This Office letter No.P-HQ/CON/452/1/EL//01 Dtd.02.01.2020  
(5) This Office letter No. P-HQ/CON/452/1/EL//150 Dtd.06.10.2020

1. In continuation to this office letter quoted under reference, willingness/un-willingness from eligible Group "C" Senior Supervisors of Electrical department having lien in S E C Railway was called for selection, for formation of a panel for the Group "B" post of ADEE/AXEE against 70% vacancies **13 posts (i.e.UR-09, SC-02 ST-02)**. The competent authority has decided to conduct the written examination for the said selection on **03.01.2021 (Sunday) at 11.00 hrs. at RRB/Bilaspur**. Details of the seating arrangement will be available at the venue.

2. A provisional list of eligible and willing candidates (**at Roll No. 01 to 43**) is enclosed as **Annexure- "A"**. The zone of consideration has been decided on the basis of 3 X formula ( ie. Three times the number of vacancies) in order of seniority amongst the willing & eligible candidates. Which was further extended to the extent of number of such candidates in the normal zone of consideration who belongs to reserved (SC) Community as per Paras 8.4 & 8.5 of Master circular No. 68.

In case any candidate is found ineligible for the above selection at any stage, their candidature will be rejected. Candidates may be directed to report to the Presiding officer on the scheduled date at the venue half an hour before to start of the examination with their **identification memo**. The format of identification memo is enclosed as **Annexure "B"**. It may be noted that individual identification memo should be given to each candidate.

3. In case any candidate is on leave or on deputation to other Railways/Units or on sick list, the controlling officer concerned should send necessary advice to the authority under whom he is working or the medical authority as the case may be acknowledgement obtained. This may be ensured to avoid any representation later on this issue.

4. The Sr.DPOs/DPOs/SPO/APO should ensure that the ACRs/APARs of the candidates who have volunteered for the above examination, for last 05 years complete in all respects and updated Service Records are available with him to be sent to Dy CPO (Gaz) at short notice when

called for.

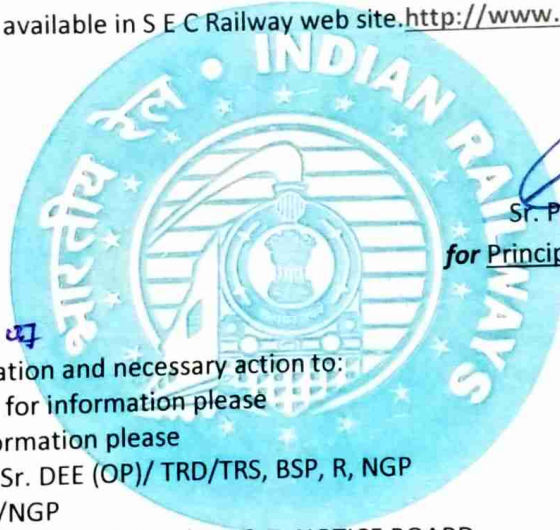
5. This is the 7<sup>th</sup> round of Gazetted selection for Electrical department being notified for S E C Railway. It is made clear that employees concerned should clearly satisfy themselves regarding their eligibility, in terms of grade, length of non-fortuitous service and holding lien in S E C Railway. Provisional consideration for selection, based on available records, will not preclude summarily debarring/disqualification of ineligible candidates at any stage.

6. The pre-selection coaching to the reserved community candidates (SC/ST) has already been organized by (i.e PCEE/SECR) vide their letter No. Elect/SECR/HQ/510/70% Selection (AEE/AXEE) 2024 Dated 06.10.2020.

7. The syllabus for selection to the post Group "B" post of ADEE/AXEE against 70% quota of Professional subject, Establishment and Finance Rules for written test is enclosed in **Annexure "C"** which may be circulated widely to all concerned. This syllabus is indicative & not necessarily exhaustive.

8. If any prospective candidate has any issue/suggestion, the same can be submitted to the Gazetted Section by **25.12.2020**, which will be examined with reference to extant rules. Any representation after the closure of notification will be not acted upon.

The notification is also available in S E C Railway web site. <http://www.secr.indian railways.gov.in>.



(Neeraj Anand)

Sr. Personnel Officer (HQ)

for Principal Chief Personnel Officer

Date: 21.12.2020.

22

No. P-HQ/CON/452/1/E / 2 07

Copy forwarded for information and necessary action to:

1. SECRETARY to GM/SECR: for information please
2. PS to AGM/SECR: for information please
3. Sr.DPO /BSP, R & NGP 4. Sr. DEE (OP)/ TRD/TRS, BSP, R, NGP
5. AWO/WRS/R, AWO/MIB/NGP
6. GS/SERMC/BSP, GS/AISC-ST/Association/BSP & 7. NOTICE BOARD

22/12/20

for Principal Chief Personnel Officer

# ANNEXURE - A

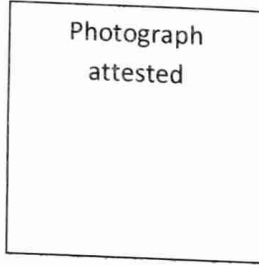
| PROVISIONAL REVISED INTEGRATED SENIORITY LIST OF SR SUPERVISORS GP 4600/- INCLUDING LOCO PILOTS GP4200/- ARE EQUATED WITH GRADE PAY 4600/- OF ELECTRICAL DEPARTMENT {AS ON 20.08.2019} |                          |       |         |      |            |            |                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------|---------|------|------------|------------|-----------------------------------------------------------------------------|
| S.N.                                                                                                                                                                                   | NAME                     | COMM. | DESIGN  | STN  | DOB        | DOA        | Date of eligibility grade of Running staff GP-4200/- equated with GP-4600/- |
| 1                                                                                                                                                                                      | SUBRAT KUMAR PADHI ✓     | UR    | SSE     | R    | 23-08-1965 | 10-10-1994 | 10-10-1995                                                                  |
| 2                                                                                                                                                                                      | P. SATYANARAYANA ✓       | ST    | SSE     | R    | 04-03-1971 | 30-04-1996 | 30-04-1996                                                                  |
| 3                                                                                                                                                                                      | SANDESH KUMAR SHARMA ✓   | UR    | SSE/TPC | NGP  | 24-10-1970 | 20-05-1996 | 20-05-1996                                                                  |
| 4                                                                                                                                                                                      | PLACIDIUS MINZ ✓         | ST    | SSE     | BSP  | 05-09-1968 | 13-10-1995 | 13-10-1996                                                                  |
| 5                                                                                                                                                                                      | SHIV KUMAR GUPTA ✓       | UR    | CLI     | RIG  | 13-03-1964 | 21-04-1989 | 29-10-1996                                                                  |
| 6                                                                                                                                                                                      | NIRANJAN SAHU ✓          | UR    | CLI     | RIG  | 02-07-1965 | 12-09-1988 | 01-11-1996                                                                  |
| 7                                                                                                                                                                                      | SUNIL KUMAR SAHU ✓       | UR    | LPP     | BSP  | 06-03-1970 | 26-08-1989 | 08-08-1997                                                                  |
| 8                                                                                                                                                                                      | P. K. ROUSTRAY ✓         | UR    | LPM     | BSP  | 06-01-1964 | 09-07-1988 | 08-08-1997                                                                  |
| 9                                                                                                                                                                                      | BALABHADRA SAHOO ✓       | UR    | LPP     | BSP  | 30-07-1966 | 13-09-1988 | 08-08-1997                                                                  |
| 10                                                                                                                                                                                     | CHHOTE LAL ✓             | UR    | LPP-II  | BSP  | 15-02-1965 | 28-04-1989 | 08-08-1997                                                                  |
| 11                                                                                                                                                                                     | G. V. K. VISWNADHAM ✓    | UR    | INST    | USL  | 03-10-1971 | 08-05-1991 | 08-08-1997                                                                  |
| 12                                                                                                                                                                                     | B. O. BILUNG ✓           | ST    | SSE     | BSP  | 30-06-1964 | 05-06-1996 | 15-08-1997                                                                  |
| 13                                                                                                                                                                                     | VIKAS AMBADE ✓           | SC    | LPP     | NGP  | 02-04-1967 | 06-01-1987 | 19-11-1997                                                                  |
| 14                                                                                                                                                                                     | N. N. SHRIRAM ✓          | ST    | SSE     | HQ   | 06-08-1965 | 29-01-1990 | 12-07-1998                                                                  |
| 15                                                                                                                                                                                     | HIMMAT SINGH BHADAURIA ✓ | UR    | LPM     | BSP  | 20-06-1969 | 10-12-1991 | 23-12-1998                                                                  |
| 16                                                                                                                                                                                     | J.S SENGARA ✓            | UR    | LPM     | BSP  | 28-10-1969 | 10-12-1991 | 23-12-1998                                                                  |
| 17                                                                                                                                                                                     | AKHILA NAND PANDEY ✓     | UR    | CLI     | BSP  | 15-05-1971 | 10-12-1991 | 23-12-1998                                                                  |
| 18                                                                                                                                                                                     | ADYA PRASAD ✓            | UR    | CLI     | KRBA | 07-04-1971 | 10-12-1991 | 23-12-1998                                                                  |
| 19                                                                                                                                                                                     | SUBASH CHNDRA MAURYA ✓   | UR    | CLI     | BRJN | 01-12-1969 | 17-12-1991 | 23-12-1998                                                                  |
| 20                                                                                                                                                                                     | INDRA PRATAP SINGH ✓     | UR    | LPM     | BSP  | 08-06-1970 | 20-12-1991 | 23-12-1998                                                                  |
| 21                                                                                                                                                                                     | S. K. KERKATTA ✓         | ST    | CLI     | BSP  | 08-03-1966 | 20-05-1992 | 23-12-1998                                                                  |
| 22                                                                                                                                                                                     | DINESH KUMAR GUPTA ✓     | UR    | LPM     | BSP  | 30-06-1969 | 09-12-1991 | 23-12-1998                                                                  |

|    |                      |    |          |        |            |            |            |
|----|----------------------|----|----------|--------|------------|------------|------------|
| 23 | RAJENDRA SHUKLA      | UR | INSTR.   | BSP    | 12-07-1969 | 10-12-1991 | 23-12-1998 |
| 24 | BALESWAR PAHAN       | ST | LP/M-E   | DURG/R | 10-12-1966 | 20-05-1992 | 28-12-1998 |
| 25 | PRADEEP KR SAHA      | UR | CLI      | G      | 12-12-1967 | 16-05-1994 | 15-02-1999 |
| 26 | DILIP KUMAR GEDAM    | ST | LPM      | BSP    | 25-08-1964 | 18-11-1986 | 23-03-2000 |
| 27 | DILLIP KUMAR SWAIN   | UR | LPM      | BSP    | 21-05-1969 | 20-05-1992 | 23-03-2000 |
| 28 | ONKAR S. KASHYAP     | UR | LPM      | BSP    | 10-05-1969 | 16-07-1993 | 23-03-2000 |
| 29 | MANGAL SINGH JAGAT   | ST | LPM      | BSP    | 10-05-1968 | 14-09-1993 | 23-03-2000 |
| 30 | GULAB LOHRA          | ST | LPM      | BSP    | 10-11-1973 | 18-09-1995 | 23-03-2000 |
| 31 | RAJESH KUMAR TIWARI  | UR | LPG      | SDL    | 04-04-1968 | 28-11-1986 | 11-04-2000 |
| 32 | SRI SITA RAM         | UR | LPP      | BJRI   | 01-07-1961 | 20-11-1982 | 11-04-2000 |
| 33 | CHINTAMANI MANJHI    | ST | SSE(TRD) | CPH    | 26-09-1965 | 07-01-1991 | 11-07-2000 |
| 34 | PARTHA PRATIM SARKAR | UR | SSE(TRD) | BSP    | 02-02-1967 | 30-09-1991 | 11-07-2000 |
| 35 | J.S.RANA             | SC | SSE(TRD) | BRS    | 30-06-1969 | 20-10-1992 | 11-07-2000 |
| 36 | SURESH PRASAD SINGH  | UR | SSE(TRD) | BSP    | 03-03-1968 | 24-10-1992 | 11-07-2000 |
| 37 | G V DANGE            | UR | SSE      | NGP    | 26-06-1968 | 15-10-1992 | 25-09-2000 |
| 38 | PURRUSOTTAM BARIK    | UR | LPP      | BSP    | 25-07-1965 | 03-08-1992 | 20-04-2001 |
| 39 | P.S.K.PATRO          | UR | LPP      | BSP    | 20-05-1967 | 03-08-1992 | 20-04-2001 |
| 40 | ARUN KUMAR DAS       | SC | LPM      | BSP    | 30-05-1969 | 20-02-1996 | 20-04-2001 |
| 41 | R K. RABIDAS         | SC | LPM      | BSP    | 03-06-1967 | 15-04-1996 | 20-04-2001 |
| 42 | S.P.RAMA SHANKER     | SC | CLI      | BJRI   | 09-06-1971 | 21-05-1996 | 15-05-2001 |
| 43 | CHANDRA P MUSTURIYA  | SC | SSE/TPC  | NGP    | 11-01-1973 | 06-12-2001 | 06-12-2001 |

## PROFORMA FOR IDENTITY SLIP

Certified that the Identity of Shri..... Designation.....  
 ..... P F No....., Date of Birth....., Date of  
 Appointment..... Date of effective promotion in scale PB-2 GP ₹ 4600/ is  
 .....who is a candidate for the ADEE/AXEE (Group 'B') examination against  
 70% quota in terms of Circulation No .....Dated ..... has been  
 verified.

His/Her signature is attested below.



(Signature of the Controlling Officer/  
 Supervisor with Office Seal)

(Signature of the Candidate)

ATTESTED

(Signature of the Controlling Officer/  
 Supervisor with Office Seal)

Countersignature of the APO/DPO/WPO  
 (Name ----- )

**N.B:**

1. The signature of the Controlling Officer/Supervisor should be in his own name and designation with Office Seal.
2. No cognizance will be given if the signature is by any one on behalf of the Controlling Officer/Supervisor.
3. It is the personal responsibility of the candidate to carry necessary proof to prove his Identity in examination hall by presenting proper identity slip as per proforma to satisfy the Officer-in-Charge/Invigilating Officer.
4. In case nothing is produced by the candidate, the Officer-In-Charge/Invigilating Officer is to satisfy himself about the proper identity of the candidate and suitable record for the same is to be kept, otherwise he is to be debarred from sitting for the examination.

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**SYLLABUS FOR WRITTEN TEST FOR SELECTION FOR FORMATION OF A PANEL OF AEE/AXEE (GROUP-B)  
AGAINST 70% VACANCIES**

|       |                                                                                                                                                                                                                                                                                                                                                  |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0   | <b>Electrical- General Services:</b>                                                                                                                                                                                                                                                                                                             |
| 1.1.0 | <b>Train lighting and air-conditioning</b>                                                                                                                                                                                                                                                                                                       |
| 1.1.1 | Design, Construction, Principles of working, Maintenance schedule, POH and Schematic Circuit diagrams of train lighting equipment used in the simplified train lighting system. Details of wiring in coaches and associated safety device in case of fire in trains and the reasons thereof. Problems of train lighting in day-to-day operation. |
| 1.1.2 | Principle of working and schematic diagram of TL alternator with Flat as well as V belts and automatic voltage regulators, Lead and batteries, their characteristic on charge and discharge, care and maintenance of batteries, battery charging plants, Sealed maintenance free batteries.                                                      |
| 1.1.3 | Schematic arrangement for the refrigeration cycle of A.C. coaches and maintenance schedules.                                                                                                                                                                                                                                                     |
| 1.1.4 | AC coaches with RMPUs and under sling equipments & schematic diagram.                                                                                                                                                                                                                                                                            |
| 1.1.5 | Board out lines of refrigeration and air-condition equipment used for air-conditioning of buildings covering window models package type plants, split type air-conditioners and central plants, planning installation and maintenance of air-condition equipment, refrigerators, water-coolers.                                                  |
| 1.2.0 | <b>Energy conservation in General Services</b><br>Energy conservation measures, including non-conventional sources, power factor improvement by use of synchronous motors and capacitor banks.                                                                                                                                                   |
| 1.30  | <b>Electrical lighting of buildings, yards and water supply arrangement.</b>                                                                                                                                                                                                                                                                     |
| 1.3.1 | Systems of wiring layouts, regulations governing the electrical equipment of buildings, contract specifications testing of installations, lighting of yards by point lights, flood lights etc, Standard of illumination for various applications and different form of light fittings suitable for special purposes.                             |
| 1.3.2 | Principles of working of various types of pumps in use on the Railways- selection of pumps and pumping installations and maintenance thereof along with their specifications. Assessment of water supply requirements in various Railway installations in terms of way and work manual.                                                          |
| 1.4.0 | <b>Power House, Sub-stations, HT &amp; LT distribution systems.</b>                                                                                                                                                                                                                                                                              |
| 1.4.1 | Specification and layout of diesel generator, Principles of working of Diesel Engine, alternator and maintenance thereof, Specific fuel consumption, synchronization and parallel operation.                                                                                                                                                     |
| 1.4.2 | Sub-Station layout, specifications etc of transformers, switchgear, protective equipment, metering equipment, erection and testing of relays, testing of transformer oil, distilled water and earth resistance, Parallel operation of transformers, Maintenance & operation of sub-stations.                                                     |
| 1.4.3 | Laying of underground cables- cable jointing location of faults in cables and equipments used for the fault finding, repairs of faulty cables, testing.                                                                                                                                                                                          |
| 1.4.4 | Earthing arrangements, Neutral earthing, testing earth screen.                                                                                                                                                                                                                                                                                   |

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| 1.5.0      | <b>Rules, Regulations etc for General Services.</b>                                                                                                                                   |
| 1.5.1      | Principle of working safety, maintenance & operation lifts. Types of motors, ratings, temperature rise, types of control & starters protective devices and safety features.           |
| 1.5.2      | Indian Electricity Rules, 1956 and Indian Electricity Act 2003 as applicable to Railway installations, safety precautions to be taken for electrical installations.                   |
| 1.5.3      | Duties and qualifications for the electrical Inspector in terms of Indian Electricity Rules, Rules for inspection of electrical installations by the Electrical Inspector.            |
| 1.5.4      | Broad details of AC, Traction, Manual applicable to general services. Safety precautions near 25 KV AC OHE, Modification to LT lines consequent of introduction of 25 KV AC traction. |
| 1.5.5      | Rules governing transmission line crossing and underground cables across the Railway tracks.                                                                                          |
| 1.5.6      | Electricity tariffs charged by the various Boards and optimization of electricity bill and power factor.                                                                              |
| 1.5.7      | Board principles and terms and condition of power supply agreement with the supply Authorities for electrical general services.                                                       |
| 1.5.8      | Procedure to be followed for EIG sanction.                                                                                                                                            |
| 1.5.9      | Preparation of estimates for minor and major works detailed and working estimates etc layout plans and contract specifications, drawing office procedures.                            |
| 1.5.10     | Difference between capital and other stores and method of recoupments.                                                                                                                |
| <b>2.0</b> | <b>Electric Rolling Stock:</b>                                                                                                                                                        |
| 2.1.1      | AC Locomotives, AC EMUs and AC MEMUs main features, main equipments, general layout and major equipment ratings.                                                                      |
| 2.1.2      | Elements of train resistance, tractive force calculation and adhesion, Types of suspension and transmission, power conditioning GTO/IGBT and protective equipment.                    |
| 2.1.3      | Maintenance practices adopted for AC locos, EMUs and MEMUs.                                                                                                                           |
| 2.1.4      | Air Compressors, vacuum exhausters, auxiliary motors and brake systems employed on electric rolling stock.                                                                            |
| 2.1.5      | Rheostatic braking                                                                                                                                                                    |
| 2.1.6      | Requirements of facilities for IOH shed and POH shops for repairs of locomotives/EMUs/MEMUs.                                                                                          |
| 2.1.7      | Features for operation of AC electric locomotives/EMUs/MEMUs as single or multiple units.                                                                                             |
| 2.1.8      | Safety features to be followed in the operation of electric locomotive, EMUs and MEMUs and statistical calculations thereof.                                                          |
| 2.1.9      | Preparation of engine links and driver links, Link working calculation of crew and loco requirement figures.                                                                          |
| 2.1.10     | Utilization of locos, traction loco control organization.                                                                                                                             |
| 2.1.11     | Rotating machines, rewinding shops practice and organization and various types of insulating materials employed.                                                                      |

|              |                                                                                                                                                                                                                                                                                                                                                                                |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1.12       | Ball, roller and suspension bearings, how clearances are ensured/measured.                                                                                                                                                                                                                                                                                                     |
| 2.1.13       | Familiarity with the ACTM and its provisions pertaining to AC electric locos/EMUs/MEMUs and items of safety checks for moving vehicles with respect of loco/EMUs/MEMUs and P way awareness of general values for wheel profiles, accidents, derailments.                                                                                                                       |
| 2.1.14       | Knowledge of factors affecting smooth current collection pantograph and factors likely to cause panto entanglements, preventive cause thereof.                                                                                                                                                                                                                                 |
| 2.1.15       | Ability to perform simple calculations regarding HP, KWH Hrs, Tractive effort intones and torque/speed relationship for AC electric locomotives/EMUs/MEMUs.                                                                                                                                                                                                                    |
| 2.1.16       | Yardstick for maintenance sheds, sources for filling vacancies trade tests and effecting promotions against vacancies.                                                                                                                                                                                                                                                         |
| <b>3.0</b>   | <b>Electrical Traction Distribution and power supply installation:</b>                                                                                                                                                                                                                                                                                                         |
| 3.1.1        | System of Traction, Planning and execution of Projects- Advantages of different system, Advantages of electric traction over other modes of traction.                                                                                                                                                                                                                          |
| <b>3.2.0</b> | <b>Maintenance and Operation of OHE.</b>                                                                                                                                                                                                                                                                                                                                       |
| 3.2.1        | Principles of OHE layout plans sectioning diagrams.                                                                                                                                                                                                                                                                                                                            |
| 3.2.2        | Maintenance schedules for OHE and Tower Wagons as per ACTM.                                                                                                                                                                                                                                                                                                                    |
| 3.2.3        | Various types of OHE break-downs and their causes and remedial action.                                                                                                                                                                                                                                                                                                         |
| 3.2.4        | Accident/break-downs normalization procedures.                                                                                                                                                                                                                                                                                                                                 |
| 3.2.5        | Criterion for usage of various types of foundations, masts/portals, span lengths, dropper schedule, regulated/unregulated OHE, PTFE/sort neutral section/conventional neutral sections.                                                                                                                                                                                        |
| 3.2.6        | Applications of Indian Electricity Act 2003 and Indian Electricity Rules 1956 as applicable to TRD installations, schedule of dimensions, Code of bonding and earthing for 25 KV AC traction, regulation for electrical crossing of Railway track, rules for movement of ODCs in electrified track, rules/procedures for working by other departments in electrified sections. |
| 3.2.7        | 2x25 Kv AC OHE system.                                                                                                                                                                                                                                                                                                                                                         |
| <b>3.3.0</b> | <b>Maintenance and operating of PSI system.</b>                                                                                                                                                                                                                                                                                                                                |
| 3.3.1        | Various types of switching posts including traction sub-stations, equipment layout therein maintenance/operation procedures for PSI equipments.                                                                                                                                                                                                                                |
| 3.3.2        | Relative merits of SF6 and vacuum circuit breakers, interruptors over all type of breakers/interruptors.                                                                                                                                                                                                                                                                       |
| 3.3.3        | Capacitor Banks-static shunt and thyristor of switched type their relative merits, maintenance and operation procedures.                                                                                                                                                                                                                                                       |
| 3.3.4        | Type of breakdowns/failures of PSI equipments causes and remedial actions.                                                                                                                                                                                                                                                                                                     |
| <b>3.4.0</b> | <b>Remote Control equipments, maintenance and operation.</b>                                                                                                                                                                                                                                                                                                                   |

|            |                                                                                                                                                                                                                                             |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.4.1      | General principles of working of remote control equipments and their maintenance schedules.                                                                                                                                                 |
| 3.4.2      | Merits of SCADA type remote control system over stagger type remote control system.                                                                                                                                                         |
| 3.4.3      | Failure of remote control equipments, causes and remedial action.                                                                                                                                                                           |
| 3.4.4      | Maximum demand control- role of TPC and Traction Loco Controllers.                                                                                                                                                                          |
| 3.4.5      | Availing direct power supply from NTPC/PGCIL etc., transmission lines.                                                                                                                                                                      |
| <b>3.5</b> | <b>General topics:</b>                                                                                                                                                                                                                      |
| 3.5.1      | Specific energy consumption, energy conservation measures as applicable for electric tractions.                                                                                                                                             |
| 3.5.2      | Tariff for electric traction and various types –their relative merits.                                                                                                                                                                      |
| 3.5.3      | Safety measures to be adopted for working of OHE/PSI installations including procedures for obtaining power and traffic blocks.                                                                                                             |
| 3.5.4      | Electrical accidents as applicable for traction installations, Reporting of such accidents to EIG.                                                                                                                                          |
| 3.5.5      | Communication in electrified section.                                                                                                                                                                                                       |
| <b>4.0</b> | <b>Establishment</b>                                                                                                                                                                                                                        |
| 4.1.1      | Recruitment, selection and induction, staff training and development, Staff cadres and channel of promotions in same class or from one class to another, selection Boards, efficiency bars, selection and non-selection posts, trade tests. |
| 4.1.2      | Discipline and appeal rules, Railway Servants conduct rules, Termination of service, discharge, dismissal, re-employment rules.                                                                                                             |
| 4.1.3      | Maintenance of Annual confidential Reports.                                                                                                                                                                                                 |
| 4.1.4      | Leave, Pass and Traveling Allowance Rules- Preparation of Pay sheets and Master Sheets- Method of payment- Box systems of payment- Dearness, Compensatory, House Rent and other allowances- Overtime, Medical attendance rules, Rent rules. |
| 4.1.5      | Departmental Procedure in regard to:<br>i) Payment of Wages Act.<br>ii) Hours of employment regulations- Adjudicator's Award- Duty rosters.<br>iii) Workman's Compensation Act.<br>iv) Indian Factory Act.                                  |
| 4.1.6      | Manpower Planning, Zero based review and rightsizing, human resources development, motivation and productivity.                                                                                                                             |
| 4.1.7      | Role of manager, managerial skill, decision making- technique and process.                                                                                                                                                                  |
| 4.1.8      | Managing Industrial relations, union & management workers participation in the management.                                                                                                                                                  |
| <b>5.0</b> | <b>Finance:</b>                                                                                                                                                                                                                             |
| 5.1.1      | <b>Principles of financial scrutiny, financial justifications of proposals involving expenditure related to:</b><br>i) Ordinary working expenses<br>ii) Works expenditure                                                                   |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <ul style="list-style-type: none"> <li>iii) Manufacture</li> <li>iv) Stores</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5.1.2 | <b>Procedure for preparation of Railway Budget in respect of :</b> <ul style="list-style-type: none"> <li>(i) Ordinary working expenses</li> <li>(ii) Works expenditure</li> <li>(iii) Manufacture</li> <li>(iv) Stores</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5.1.3 | <b>Control over expenditure on works:</b> <ul style="list-style-type: none"> <li>i) Work registers, their maintenance, review and reconciliation with general books.</li> <li>ii) Estimates of various types, their certifications by Accounts.</li> <li>iii) Tenders- type of tenders, procedure for calling, consideration and acceptance tenders, and association of accounts.</li> <li>iv) Progress reports, financial reviews, publicity expenditure, imprest cash.</li> <li>v) Rules for grouping works, competency of sanctions.</li> <li>vi) Deposit works, Incidence of expenditure of works for other departments.</li> </ul> |
| 6.0   | <b>Stores and material management:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 6.1.1 | <ul style="list-style-type: none"> <li>i) Legal aspects of purchasing and ethics in buying.</li> <li>ii) Material management outlines and essential principles of the purchasing function.</li> <li>iii) Procedure for drawl of stock items including disposal of various foils.</li> <li>iv) Custody stores</li> <li>v) Scrap disposal</li> </ul>                                                                                                                                                                                                                                                                                      |
| 6.1.2 | <ul style="list-style-type: none"> <li>i) Inventory control</li> <li>ii) ABC analysis</li> <li>iii) Stock &amp; non-stock items, procedure for procurement of non-stock items, PAC items etc.</li> <li>iv) Rules for entering into supplying contracts and technical scrutiny of offers.</li> </ul>                                                                                                                                                                                                                                                                                                                                     |
| 7.0   | <b>Information Management Computers-</b><br>Role of computers in management, introduction to computers, personal computer and its uses MIS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8.0   | <b>Rajbhasha</b> <ul style="list-style-type: none"> <li>i) Constitutional provisions regarding official language.</li> <li>ii) Official Language Act, 1963</li> <li>iii) The official language rules, 1976.</li> <li>iv) Official language implementation Committee</li> <li>v) Use of bi-lingual software/hardware for bi-scriptural use of computers.</li> </ul>                                                                                                                                                                                                                                                                      |
|       | <b>(Ten percent of the total marks allotted for question on official language policy and rules.)</b><br>****                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |